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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,076	01/25/2001	Michael D. Krysiak	P/35-4	7143

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12/20/2005

EXAMINER

VALENTI, ANDREA M

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/769,076	Applicant(s) KRYSIK ET AL.	
	Examiner Andrea M. Valenti	Art Unit 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30, 32, 36-42 and 45-53 is/are pending in the application.
- 4a) Of the above claim(s) 1-25, 36, 37, 39-42, 45, 46, 48, 49, 51 and 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-30, 32, 38, 47, 50 and 52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 50 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for claims 26-30, 32, 38, 47, and 52 given the broadest and reasonable interpretation of the specification these claims pertain merely to a mulch that is colored as an indicator and does not involve any chemical reactions (specification page 10 line14-15), the specification does not reasonably provide enablement for claim 50. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with claim 50. The specification does not disclose what makes the color change or fade, is it a chemical process? How does the chemical process work and what are the chemicals and reactions involved?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 50 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,932,156 to Underwood.

Regarding Claim 50, Underwood teaches a colored mulch product (Underwood abstract line 1) wherein the color fades or disappears (Underwood abstract line 2) in response to a lack of nutrient or fertilizer in the mulch (Underwood abstract line 4 “ambient weather conditions”; the examiner views “nutrient” as water and when it rains, rain is an element of ambient weather conditions, objects inherently tend to appear vibrant. As the object dries (i.e. as it losses the nutrient water) it will inherently fade).

Claim 47 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,067,140 to Thomas.

Regarding Claim 47, Thomas teaches a colored mulch product (Thomas abstract) comprising: a material comprising a fiber cellulose (Thomas abstract first line), clay, loam, sand, and/or a combination of same; a binding agent (Thomas Col.1 line 30 “wetting agent” and Col. 4 line 35-41); and a dye and/or pigment (Thomas Col. 1 line 35) produced by a lifting and tumbling agglomeration operation (Thomas Col. 2 line 65-66. Applicant has not claimed any limitation in this claim that pertains to the mulch acting as an indicator).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3643

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26, 27, 28, 29, 30, 50, 52 are rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 4,932,156 to Underwood or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 4,297,810 to Hansford in view of U.S. Patent No. 2,526,938 to Davis et al

Regarding Claims 26, 28, 29, 30, 50, and 52, Hansford teaches a colored mulch (Hansford 2 line 14) and the importance of moisture (Hansford Col. 2 line 63) to the plants thus indicating general knowledge in the field of the plant husbandry that it is desirable to monitor the moisture conditions and to provide adequate moisture to ensure healthy development and that it is known to color mulch. Hansford is silent on the mulch fading in response to a lack of nutrient/chemical (i.e. water). However, Davis teaches a colorant additive that changes color as an indicator that water (i.e. nutrient) is present or absent (Davis Col. 1 line 35-41). It would have been obvious to one of ordinary skill in the art to modify the teachings of Hansford with the teachings of Davis at the time of the invention for the advantage of the known ability to monitor the moisture content as taught by Davis to ensure healthy growth and development of plants. The modification is merely the selection of a known alternate equivalent selected for the known advantage of its indicator properties. It would be obvious to one of ordinary skill in the art to perform the method step to add water (i.e. chemical) to the mulch when the mulch appears to have a low moisture concentration.

Regarding Claim 27, Hansford as modified teaches fertilizer and this inherently teaches nitrogen, phosphorous, and potassium fortifiers (Hansford Col. 5 line 4)

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,297,810 to Hansford in view of U.S. Patent No. 2,526,938 to Davis et al as applied to claim 26 above, and further in view of U.S. Patent No. 5,734,167 to Skelty.

Regarding Claim 32, Hansford as modified teaches coloring the mulch, but is silent on the dye is florescent. However, Skelty teaches it is old and notoriously well-known to dye agricultural products with florescent dye allowing the mulch to glow in the dark (Skelty Col. 1 line 35-45). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Hansford with the teachings of Skelty at the time of the invention since the modification is merely the selection of a known alternate coloring for the advantage of enabling safe night time agricultural operations as taught by Skelty (Skelty Col. 1 line 1-26).

Claims 26-30, 38 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,324,781 to Stevens in view of U.S. Patent No. 5,387,745 to Brendle.

Regarding Claims 26, 28, 29, and 30, Stevens teaches a colored mulch product (Stevens abstract line 2) consisting essentially of: a material comprising a fiber cellulose, clay, loam, sand, and/or a combination of same; a binding agent (Stevens Col. 2 line 2); and a dye and/or pigment (Stevens Col. 6 line 35). Stevens teaches a dye, but is silent on the dye **indicates** to a user environmental conditions of the soil where said mulch is placed; the dye **indicates** to a user the acidity of said soil; the dye

Art Unit: 3643

indicates to a user the moisture content of said soil; or the dye **indicates** to a user the chemical content of said soil.

However, Brendle teaches that is old and notoriously well-known to use color (i.e. dye and/or pigment) in agricultural applications as an indicator, a label, a marker.

Brendle is cited **merely to teach** that is known **to use color as an indicator of a particular characteristic of a parcel of land**. Purely as an example, in the case of Brendle, it is an area of land that receives a coating of a chemical composition that was pre-treated with a colorant (Brendle abstract and Col. 2 line 21-40). In other words, Brendle can apply to teaching an area of land that receives a coating of mulch composition that was pre-treated with a dye/pigment. It would have been obvious to one of ordinary skill in the art to modify the teachings of Stevens with the teachings of Brendle at the time of the invention for the advantage of ease of distinction and the known advantage that the presence of color has been found that misapplications of substances is more easily avoidable as taught by Brendle (Brendle Col.2 line 58-60) (i.e. distinction of knowing where a pesticide has been applied, knowing where a particular species/variety of plant has been planted, etc). It is generally knowledge to of one of ordinary skill in the art that different plant varieties require different soil conditions. Thus, it would have been obvious to one of ordinary skill in the art to use a green colored mulch to distinguish where grass seed was plant and a red colored mulch to distinguish were tomatoes were planted. These two colors would inherently indicate different soil conditions since grass and tomato plants require different levels of moisture, different levels of acidity, and different levels of fertilization. Using color as an

Art Unit: 3643

indicator/marker of any property, process, or treatment it an obvious modification for one of ordinary skill in the art as supported by Brendle.

Regarding Claim 27, Stevens as modified teaches the mulch comprising; nitrogen, phosphorous, and potassium fortifiers (Stevens abstract last line).

Regarding Claim 38, Stevens as modified teaches the mulch is the same or similar color of an actual plant, flower, fruit, or vegetable of a seed planted with the mulch (Stevens Col. 6 line 37).

Regarding Claim 52, Stevens as modified teaches a method of placing colored mulch on top of soil; inherently changing the colors of the mulch based on the condition of the soil since when it rain, rain is an element of ambient weather conditions, there is more water in the soil objects tend to appear vibrant, but as the object dries (i.e. as it losses the nutrient water) it will inherently fade. Thus the colors inherently change based on the moisture conditions of the soil.

Stevens is silent on adding chemicals to the soil based on the color of the mulch. However, on one hand, it is old and notoriously well-known in the art of plant husbandry to observe and test soil conditions to see if they meet the desired parameters. It would have been obvious to one of ordinary skill in the art, at the time of the invention, if they observed that the mulch was faded in appearance because of reduced moisture levels, that one of ordinary skill in the are would obviously know to add the chemical (i.e. water) to improve the moisture conditions depending on the needs of plant varieties located in that area. On the other hand, it is old and notoriously well-known to use color as an indicator as discussed in the preceding paragraphs. If grass was planted with the green

Art Unit: 3643

colored mulch it would be obvious to one of ordinary skill in the art to add chemicals to that area to meet the needs of grass.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,324,781 to Stevens in view of U.S. Patent No. 5,387,745 to Brendle as applied to claim 26 above, and further in view of U.S. Patent No. 5,734,167 to Skelty.

Regarding Claim 32, Stevens as modified teaches coloring the mulch, but is silent on the dye is florescent. However, Skelty teaches it is old and notoriously well-known to dye agricultural products with florescent dye allowing the mulch to glow in the dark (Skelty Col. 1 line 35-45). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Stevens with the teachings of Skelty at the time of the invention since the modification is merely the selection of a known alternate coloring for the advantage of enabling safe night time agricultural operations as taught by Skelty (Skelty Col. 1 line 1-26).

Response to Arguments

Applicant's arguments filed 03 October 2005 have been fully considered but they are not persuasive.

Examiner maintains the rejection of claim 50 under 35 USC 112, first paragraph. In applicant's arguments that applicant has merely pointed out the section of the specification that refer to the types of dyes/pigments that are selected to color the mulch. The specification indicates that pretty much any dye can be used (specification page 13 first paragraph). The specification in no way describes the mulch functioning

Art Unit: 3643

as a litmus paper. The specification merely mentions the dyes that can be selected and the objective the mulch for the dye to change color based on the acidity, moisture or chemical content of the soil (specification page 7 line 8-12). However, the specification does not disclose what makes the color change or fade, is it a chemical process? How does the chemical process work and what are the chemicals and reactions involved? Applicant reference a section of the specification that mentions that nutrients are added to the soil to control pH (specification page 3 lines 9-14), but this provides no correlation to how the dye functions. Thus, the examiner maintains that the specification does not provide enablement for claim 50.

Claims 26-30, 32, 38 and 47 merely claim mulch that is colored as an indicator to signify that a treatment has been done to that area. The current wording of the limitations do not necessarily pertain to any chemical reactions. The support/enablement for these claims is found in the specification (specification page 10 line 14-15 "to provide dyes to seeds and mulches for color accents and for ease in determining where the products are located").

Examiner maintains the rejection of claim 50 as being anticipated by Underwood. Underwood is cited to teach that it is notoriously well-known for colored mulch to be exposed to ambient weather conditions. Ambient weather conditions inherently involve rain/moisture. Items that get wet inherently have a more vibrant color then items that dry. Applicant has indicated in the specification that water/moisture is an important nutrient (specification page 7 line 10-12). Thus, as Underwood gets wet it changes

Art Unit: 3643

color indicating that moisture/water is present and as it dries it changes color to indicate moisture is absent.

Furthermore, examiner would like to point out that it is old and notoriously well-known for clay to change colors as it get wet. Prior art reference of record U.S. Patent No. 6,058,647 to Emalfarb teaches that clay changes color (Emalfarb abstract, Col. 3 line 24-30 and Col. 3 line 58). It is notoriously well-known to provide clay as a component to mulches (U.S. Patent No. 3,876,411 Col. 1 line 40-47; U.S. Patent No. 3,876,411 Col. 1 line 58; U.S. Patent No. 6,076,299 abstract. Thus the clay component of the mulch will inherently change color when it gets wet thus acting as an indicator that moisture is present.

Thomas teaches a lifting and tumbling agglomeration. However, lifting and tumbling agglomeration is a notoriously well-known manufacturing coating means. The selection of known manufacturing means are obvious engineering design decision based on the efficiency and effectiveness of the equipment, cost, availability of equipment, etc.

Hansford as modified by Davis does teach a dye indicator of the acidity of the soil, since the dye indicates if the soil is saturated or not. If the soil is saturated that acidity will be diluted by the rainwater and thus it is indicated to the user that it has a diluted acidity.

Examiner maintains the rejection of Stevens in view of Brendle. Applicant has not claimed how long the dye functions as an indicator. So even though Brendle might be water soluble, up until the time it rains Brendle is function as a color indicator that an

Art Unit: 3643

area of land was treated with fertilizer, pesticide, herbicide, seeds, etc. Furthermore, Brendle was not cited for its chemical constituents, but was cited to teach the known concept of using color in agricultural applications as an indicator of a treated area. Examiner maintains that Stevens as modified by Brendle does in fact teach the environmental conditions of where the mulch is placed. First, the environmental conditions of an area that is mulched will be different than the environmental conditions of a non-mulched area. A mulched area will have a higher moisture concentration than a non-mulched area. Thus the indication in this instance is merely an "environmentally mulched area". If an area is treated with fertilizer and the treated area is indicated with an indicator dye, then one of ordinary skill in the art knows the acidity of that area, the chemical content of that area. Also, as stated in regards to claim 50, when Steven's mulch gets wet it will inherently change color and as it dries it changes color thus indicating the presence and absence of moisture (i.e. nutrient/chemical).

Examiner maintains that Stevens does teach that the mulch is the same color as the plant to indicate what is planted (Stevens #31 is the seed and Col. 5 line 5-17 teaches that grass seed is planted and Col. 6 line 37 teaches the mulch matches the color of the grass).

Applicant's arguments with respect to claim 52 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,076,299.

Art Unit: 3643

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 571-272-6895. The examiner can normally be reached on 7:00am-5:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrea M. Valenti
Patent Examiner
Art Unit 3643

13 December 2005